File: In Bacharo Lehrer Co. 4400

OFFICE MEMO

ATTN: Bob Glebs

FROM:

Terrence Gardon

SUBJECT:

20th Street Leachate Seep, City of Kaukauna

On July 15, 1977 Soil Testing Services submitted a report on the leachate seep north of the Lehrer landfill in the City of Kaukauna. The report recommended that additional study be done in the area. On December 5, 1977 Soil Testing submitted the final report on the seep to our office. Following is a summary of the conclusions drawn and the District recommendations concerning the seep.

Ground water flow is in a northeast direction away from Lehrer landfill and toward the leachate seep.

An uncontrolled fill exists beneath the 20th Street area.

Water quality decreases with increasing distance from the Lehrer landfill.

The seep does not originate at the low point of the ravine but down slope from a culvert beneath 20th Street.

If leachate were escaping from the Lehrer landfill the flow would be channelized through the uncontrolled fill. Based upon STS's uniform flow data leachate could not have travelled through the fill material during this time period. (3 years)

In conclusion the evidence indicates that the source of the seep is probably a result of the infiltration of surface water into the uncontrolled fill beneath 20th Street. If leachate were escaping from the Lehrer landfill water quality near the site would show greater contamination. The report seems to indicate that a channelized flow of leachate from Lehrer landfill through the uncontrolled fill is possible although the water quality data does not reflect this. If this channelized theory were the case one would expect the water quality of the seep to be similar to the water quality near the Lehrer fill.

Since the surface drainage off of Lehrer landfill has been diverted to the east toward Kankapot Creek and the depression at the head of the culvert backfilled, the District recommends that no action be taken on the seep until late spring 1978. If the leachate seep still persists at this time a cutoff trench should be dug along the north cells of the Lehrer landfill to determine once and for all if channelization of the leachate through the 20th Street fill is occurring. If channelization is occurring the trench should then be backfilled with clay to create a clay cutoff wall. If channelization is not occurring steps should be taken to prevent the infiltration of surface water into the 20th Street

fill. This may eventually lead to plugging the culvert or removing it altogether. The responsibility for having this work done would have to be decided between the City of Kaukauna and James Lehrer. The District feels that the installation of additional wells or soil borings in the area would not conclusively determine the source of the leachate seep as the cutoff trench would.

Terry Hardon

TG:sh

SOIL TESTING SERVICES OF WISCONSIN, INC. CONSULTING SOIL & FOUNDATION ENGINEERS 540 LAMBEAU ST., GREEN BAY, WIS. 54303

Lohrer tw Buchever

PHONE: (414) 494-9656

JOHN P. GNAEDINGER, P.E. CLYDE N. BAKER, JR., P.E. WILLIAM M. PERPICH, P.E. WILLIAM C. KWASNY, P.E.

JAN2 8 1976

Litta Mich. Dist.

William G. Hamaiti, F.E.	_naw	3 SAUMIO PAGE.	Date Janua	ry 26, 1976
Department of	Natural Resources			
			STS Job No	6148 A
812 South Fish	Street		Structure	Lehrer Landfill
Green Bay, Wis	sconsin 54304		Location	Kaukauna, Wisconsin
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Remarks cc: Departm	ment of Natural Resou	irces		
P. 0. E	Box 450			
Madisor Attn:	n, Wisconsin 53701 Mr. Bob Glebs			
		Yours truly,		

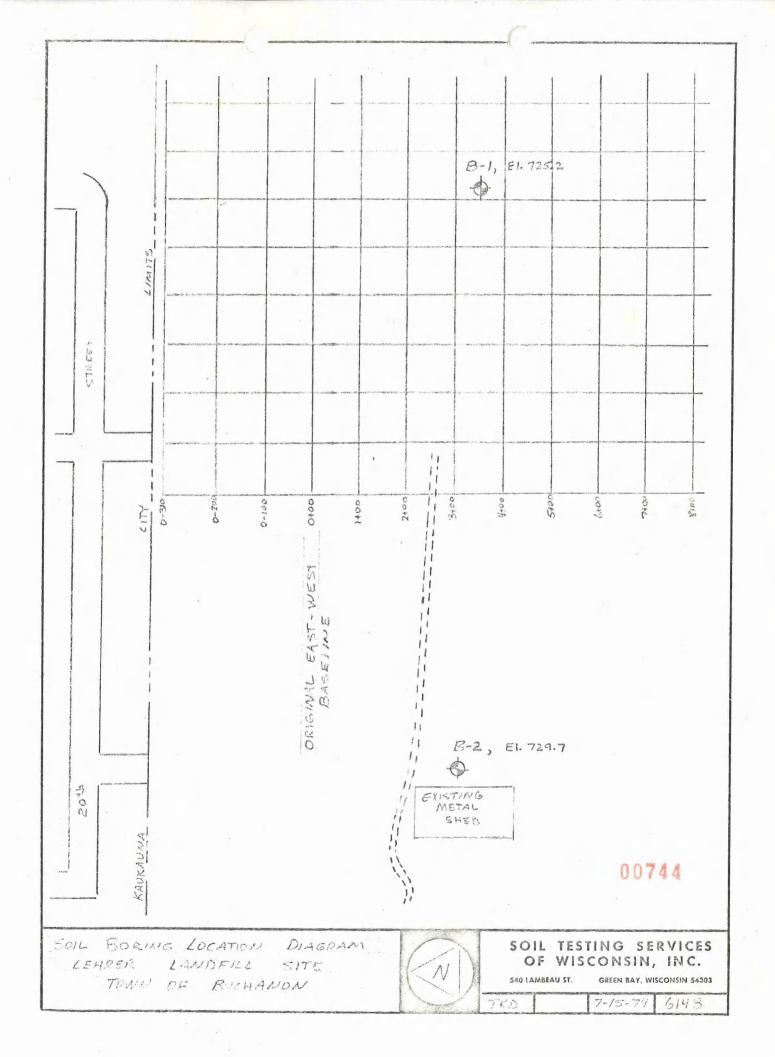
Timothy K. Dahlstrand

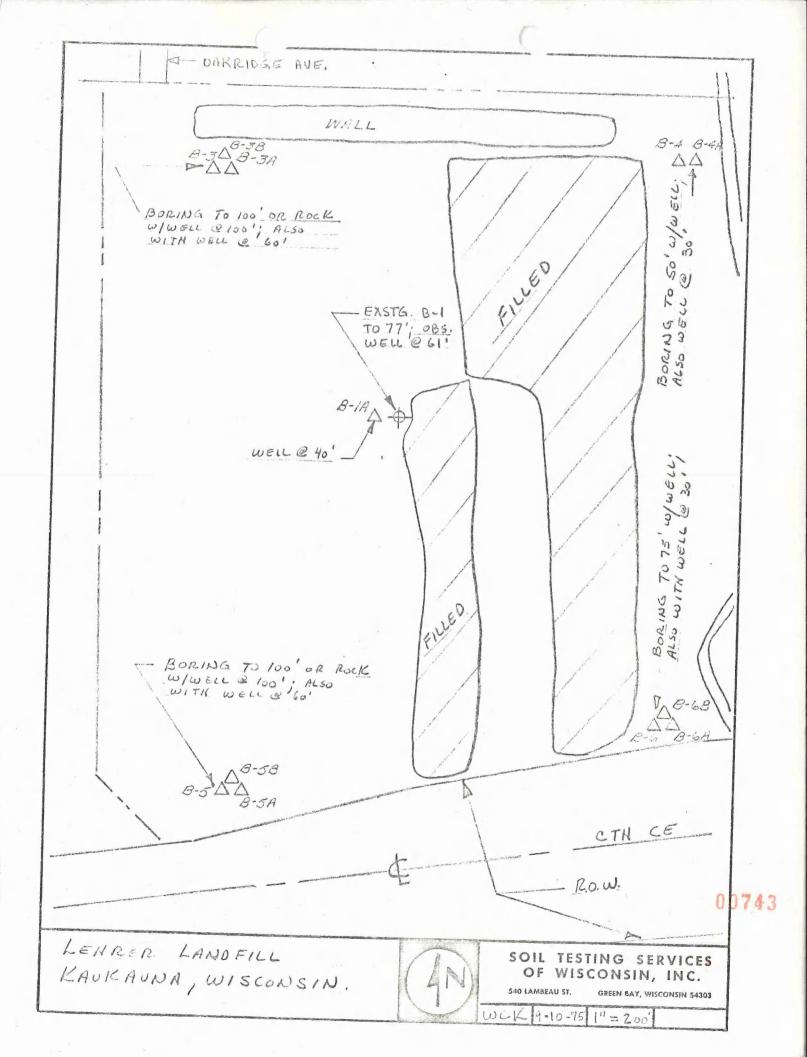
SOIL TESTING SERVICES OF WISCONSIN, INC.

Registered Professional Engineer, Wisconsin
INSPECTION ENGINEERING ANALYSES AND REPORTS

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FOUNDATION BORINGS AND TESTING





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GREEN BAY, WIS. 54303

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The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

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GREEN BAY, WIS. 54303

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The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

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1	Baj	lec	<u></u>	to	31.0'							SHEET		
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LOG OF BORING NO. OWNER. ARCHITECT-ENGINEER Harris and Associates PROJECT NAME SITE Highway 55 and CTH EE Proposed Lehrer Landfill Kaukauna, Wisconsin UNCONFINED COMPRESSIVE STRENGTH TONS/FT.2 SAMPLE ¥ε Ŏ. DESCRIPTION OF MATERIAL HOUR PAY. PLASTIC LIMIT % WATER CONTENT LIMIT % UNIT C LBS./> SAMPLE SAMPLE STANDARD "N" PENETRATION (BLOWS/FT.) SURFACE ELEVATION Brown sandy topsoil-hard-(SC) Brown silty clay with trace to some sand and gravel-very tough (1) 3 ST 0 4 ST Red brown silty clay with trace gravel-tough-(CL) 112 0 5 ST 10 Brown clayey silt with trace sand and gravel-hard-(ML) 113 15 ST 118 0 Brown silty clay with trace gravel-soft to tough-(CL-CH) 0 $-\Delta$ ST 8 25 106 ST 9 Red brown silty clay with trace gravel and woody fibers-very tough to hard-(CL) 10 | sт||Ш 0 ø Ö 11 ST Red brown silty clay with occasional silt seams-hard-(CL) 40 0 ST 12 45 0 13 ST ST 55 5 ST 60 Varved red brown clay and gray brown silt 1/4" to 1.0" in ST thickness-tough to very tough-(CL & ML) 65 17 | ST||||II 70 -Δ M STI 18 * ST 19 ST 20 85 Gray brown silty clay with trace to some gravel and occasional ST seams of red clay-tough-(CL) 1 -Δ 92 22 ST *Calibrated Renetrometer End of Boring Observation well installed at 90.0' WATER LEVEL OBSERVATIONS BORING STARTED 12-18-75 SOIL TESTING SERVICES BORING COMPLETED W.L. 12-22-75 A.C.B. FOREMAN RIG W.L. B.C.R. OF WIS., INC. APPROVED TKD WΙ 540 LAMBEAU STREET DRAWN K₀ GREEN BAY, WIS. 54303 6148 A SHEET l of l JOB # The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

LOG OF BORING NO. ARCHITECT-ENGINEER OWNER Harris and Associates Highway 55 and CTH EE Kaukauna, Wisconsin PROJECT NAME SITE Proposed Lehrer Landfill UNCONFINED COMPRESSIVE STRENGTH TONS/FT. Şε DEPTH SAMPLE DIST. NO. DESCRIPTION OF MATERIAL UNIT DRY V PLASTIC LIMIT % WATER LIQUID CONTENT % LIMIT % SAMPLE SAMPLE --- A -0--TYPE STANDARD "N" PENETRATION (BLOWS/FT.) SURFACE ELEVATION 10 No soil sampling well point installed at 70.0 feet 15 20 25 30 35 40 45 55 60 65 70 End of Boring Obstruction at 66.0 feet WATER LEVEL OBSERVATIONS BORING STARTED 12-16-75 SOIL TESTING SERVICES BORING COMPLETED 12-18-75 W.L. 19.0' WD B.C.R. A.C.R. RIG FOREMAN BS W.L OF WIS., INC. APPROVED W.L 63.1' after bailing 540 LAMBEAU STREET DRAWN TKD JOB # 6148 A GREEN BAY, WIS. 54303 SHEET The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

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						between soil	types and	the tr	ansitio	n may	be ara	adual.	

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LOG OF BORING NO. OWNER ARCHITECT-ENGINEER Harris and Associates PROJECT NAME SITE Highway 55 and CTH EE Proposed Lehrer Landfill Kaukauna, Wisconsin UNCONFINED COMPRESSIVE STRENGTH TONS/FT. N W SAMPLE DESCRIPTION OF MATERIAL UNIT DRY I LIQUID PLASTIC LIMIT % WATER SAMPLE N CONTENT % LIMIT % SAMPLE -0--STANDARD "N" PENETRATION (BLOWS/FT.) SURFACE ELEVATION ST Red brown to brown silty clay with trace to some sand and gravel and with trace to some roots, woody fibers and black peaty pockets-possibly fill material-soft to very tough-(CL) 4 ST 5 ST 6 ST ST ON 7 Irregularly varved red brown clay and gray brown silt with trace gravel-tough-(CL-ML) 8 ST 0 9 ST Brown silty clay with trace to some gravel in the form of limestone pieces-trace to some cobbles and boulders-tough-(CL) 11 ST 11 II 0 40 BOULDER REFUSAL 12 57 31 45 8 13 55 14 SS Brown silty clay with trace to some sand, gravel, cobbles and boulders-hard-(GC) 55 15 SS Weathered broken limestone 60 16 SS RB 65.5 *Calibrated Penetrometer End of Boring 61' of NX casing Boulders or obstructions from 431 to end of boring Observation well installed at 64.5' 0073 WATER LEVEL OBSERVATIONS BORING STARTED SOIL TESTING SERVICES BORING COMPLETED 12-23-75 W.L. 10.0' WS A.C.R. FOREMAN B.C.R. RIG W.L. 5.01 5.01 OF WIS., INC. BS 27.0' AB APPROVED 540 LAMBEAU STREET DRAWN K0 TKD GREEN BAY, WIS. 54303 6148 A SHEET JOB # Bailed to 27.0' from top of PVC The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

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W.L.	3				ter bailing	OF WIS 540 LAMBEA		т	DRAWN			APPROV		TKD
					34.4' from	GREEN BAY,			JOB #			SHEET		
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	top of PVC				hat was a sail	s represent the approximate boundary								